

metal values and a solids residue comprising fluorine and scandium metal values and at least partially depleted in tantalum and niobium metal values;

separating and drying the solids residue;

(12) reacting the solids residue with a mineral acid comprising sulfuric acid for a period of time, and under temperature and pressure conditions sufficient, to liberate hydrogen fluorine gas and to generate a sulfated material comprising scandium metal values and at least partially depleted in fluorine metal values;

and leaching the sulfated material to solubilize scandium metal values contained in the sulfated material and generate said aqueous solution comprising scandium metal values and a solid phase at least partially depleted in scandium metal values.

17. (New) The process of claim 16 wherein the mineral acid comprises sulfuric acid.

18. (New) The process of claim 17 wherein the extracting a scandium metal value from said aqueous solution comprises: contacting said aqueous solution with an organic medium which includes a diluent and an extractant, said diluent being immiscible with said aqueous solution thereby producing an organic phase comprising scandium metal values and a raffinate at least partially depleted in scandium metal values;

contacting said organic phase with a scandium stripping agent to form a scandium phase comprising at least a portion of the scandium metal values present in said organic phase; an additional aqueous phase comprising said scandium stripping agent; and a final organic phase at least partially depleted in scandium metal values.

19. (New) The process of claim 18 wherein the organic medium comprises DEPHA (Di 2-ethylhexylphosphoric acid) as an extractant and an aliphatic non-soluble C₉-C₁₆ hydrocarbon as a diluent.

20 (New) The process of claim 19 wherein the scandium stripping agent comprises sodium hydroxide.

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